



United States
Department of Agriculture
Natural Resources
Conservation Service



KIKA DE LA GARZA PLANT MATERIALS CENTER KINGSVILLE, TEXAS



2000 ACTIVITY REPORT

TABLE OF CONTENTS

STAFF AND ASSISTANCE -----	1
INTRODUCTION -----	3
LOCATION AND FACILITIES -----	3
SERVICE AREA -----	4
CLIMATE DATA -----	5
PLANT RELEASE PROGRAM -----	6
LONG RANGE PROGRAM -----	7
PASTURE AND RANGELAND GRASSES -----	8
WARM SEASON NATIVE GRASS PROJECTS -----	8
COOL SEASON NATIVE GRASS PROJECTS -----	10
EROSION CONTROL AND WATER QUALITY IMPROVEMENT -----	11
VEGETATIVE BARRIERS -----	11
RIPARIAN SHRUBS AND SMALL TREES -----	11
WETLAND SPECIES FOR WATER QUALITY IMPROVEMENT -----	12
WILDLIFE HABITAT IMPROVEMENT -----	13
COASTAL WATERBIRD HABITAT -----	13
WILDLIFE UPLAND HABITAT -----	14
ECOSYSTEM RESTORATION -----	15
SALINE SITE RESTORATION -----	15
PLANT MATERIALS CENTER PARTNERSHIPS -----	16
TECHNOLOGY TRANSFER -----	17
PRESENTATIONS -----	18
PLANT MATERIALS DISTRIBUTED IN 2000 -----	19
PLANT RELEASES -----	19

STAFF AND ASSISTANCE

PLANT MATERIALS CENTER STAFF

FULL TIME

John Lloyd-Reilley	Manager
Alberto Quiroga	Biological Technician
George Farek	Research Technician
Elizabeth Kadin	Research Associate

PART TIME

Helen Montalvo	Clerk/Typist
Yvonne Garza	Biological Aid
Ismael Hernandez	Biological Aid
Irma Negrete	Research Assistant

NRCS SUPPORT AND ASSISTANCE

Richard White

National Plant Materials Specialist-Washington, D.C.

John Burt

State Conservationist-Temple, TX.

James Alderson

Plant Materials Specialist-Temple, TX.

ADVISORY BOARD MEMBERS

Dr. Fred C. Bryant

(Chairman), CKWRI, Texas A&M University-Kingsville, TX.

Mr. John Burt

State Conservationist, Natural Resources Conservation Service, Temple, TX.

Dr. Charles A. DeYoung

Dean of College of Agriculture, Texas A&M University-Kingsville, TX.

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Mr. Craig Shook

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Mr. Carter Smith

The Nature Conservancy, Corpus Christi, TX.

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Raymondville, TX.

Mr. Dexter Svetlik

Assistant State Conservationist for Field Operations, NRCS, Corpus Christi, TX.

PLANT MATERIALS TECHNICAL COMMITTEE

The Plant Materials Technical Committee is comprised of technical specialists and representatives of industry, agencies, universities, Soil and Water Conservation Districts (SWCD) and other applicable organizations. It provides technical guidance for plant materials projects, collections, selections, and releases.

Soil and Water Conservation Districts: Helped sponsor and contribute funds for support of the Plant Materials Center during the 2000 calendar year.

SOUTH TEXAS ASSOCIATION OF SOIL AND WATER CONSERVATION DISTRICTS:

ATASCOSA COUNTY SWCD
JIM WELLS SWCD
NUECES SWCD
KLEBERG / KENEDY SWCD
SOUTHMOST SWCD
DIMMIT COUNTY SWCD
AGUA POQUITA SWCD
LIVE OAK SWCD
FRIO SWCD
WINTER GARDEN SWCD
LOMA BLANCA SWCD
COPANO BAY SWCD
MONTE MUCHO SWCD
STARR COUNTY SWCD
ZAPATA SWCD
WEBB SWCD
BEE SWCD
WILLACY SWCD
HIDALGO SWCD
MCMULLEN COUNTY SWCD
LASALLE COUNTY SWCD

GULF COAST ASSOCIATION OF SOIL AND WATER CONSERVATION DISTRICTS:

CALHOUN SWCD
WATERS-DAVIS SWCD
MATAGORDA COUNTY SWCD
JACKSON SWCD
HARRIS COUNTY SWCD

INTRODUCTION

The Kika de la Garza Plant Materials Center (PMC) located at Kingsville, Texas, was established in April, 1981. The PMC is operated by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, in cooperation with an Advisory Board from Texas A&M University-Kingsville, the Caesar Kleberg Wildlife Research Institute (CKWRI), the South Texas Association of Soil and Water Conservation Districts (STASWCD), and the Gulf Coast Association of Soil and Water Conservation Districts (GCSWCD). The Advisory Board provides overall guidance and direction toward meeting the Plant Materials Center's objectives.

The objective of the Plant Materials Program is to provide cost effective vegetative solutions for soil and water conservation problems. This means identifying plants for conservation use, developing techniques for their successful use, providing for their commercial increase, and promoting their use in natural resource conservation and other environmental programs.

LOCATION AND FACILITIES

The Kika de la Garza PMC is located just outside of Kingsville on 76 acres of land leased from Texas A&M University-Kingsville and 5 acres leased from the King Ranch (see map inside back cover). The soils at the PMC are Raymondville clay loam and Victoria clay. The King Ranch annex has Delfina fine sandy loam soil and Willacy fine sandy loam soil. Topography of the PMC is flat.

Facilities consist of an office, greenhouse, seed cleaning barn, seed storage building, shop and equipment storage barn, and a fuel and pesticide storage complex. Limited irrigation water is available from a shallow pond located at the PMC and is applied as furrow irrigation. Specialized hydroponic tanks are located at the PMC for use in production and evaluation of aquatic plants.

INTERNET

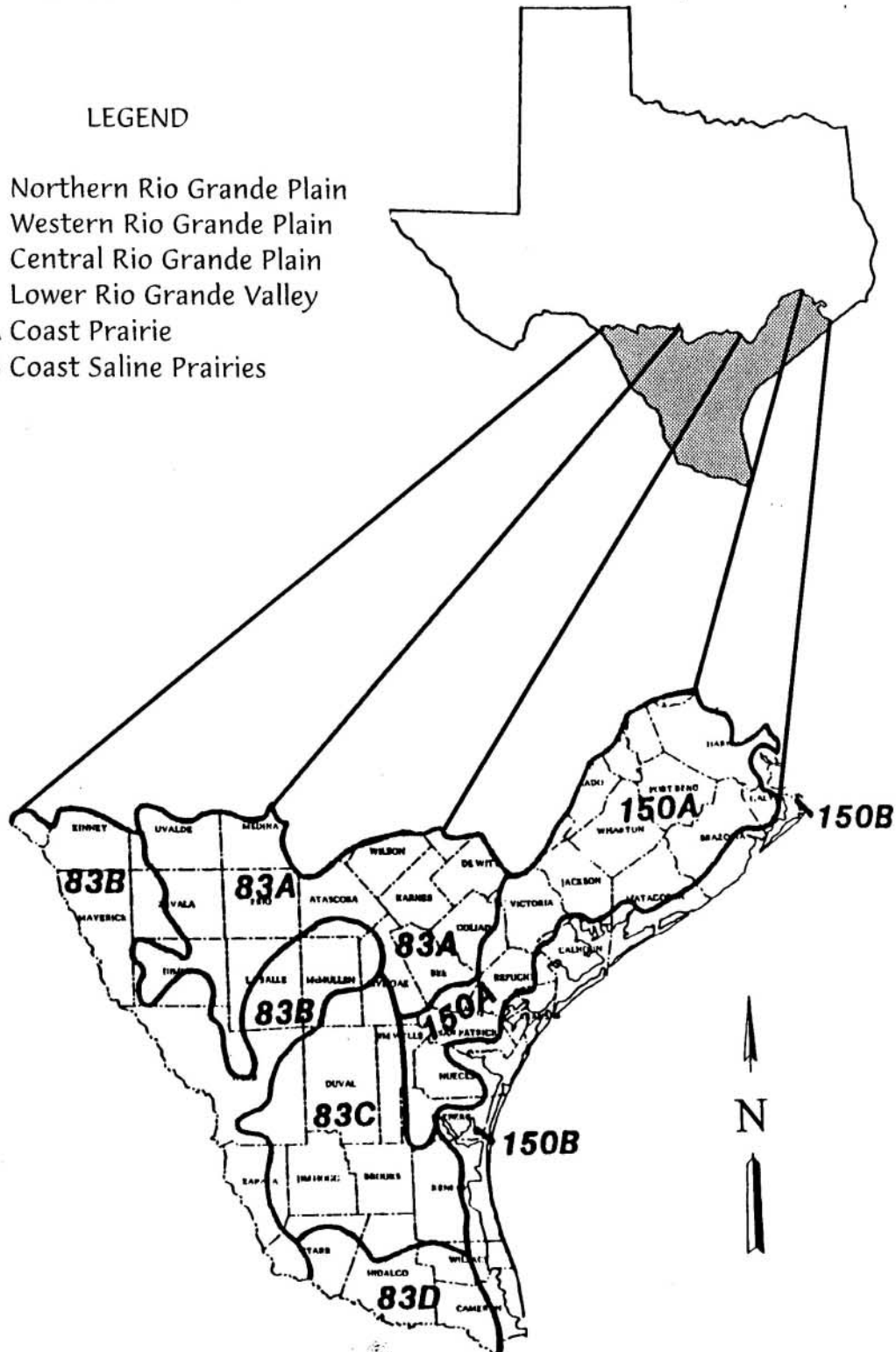
You can access our website on the internet to find information about the Plant Materials Center. Information and publications will be added to our home page periodically to keep it up-to-date. The website address is accessed through **<http://www.tx.nrcs.usda.gov>** or **<http://plant-materials.nrcs.usda.gov>**.

SERVICE AREA

The Kika de la Garza Plant Materials Center serves 6 Major Land Resource Areas (MLRA) totaling approximately 27 million acres of the southern portion of Texas.

LEGEND

- 83A Northern Rio Grande Plain
- 83B Western Rio Grande Plain
- 83C Central Rio Grande Plain
- 83D Lower Rio Grande Valley
- 150A Coast Prairie
- 150B Coast Saline Prairies



CLIMATE DATA

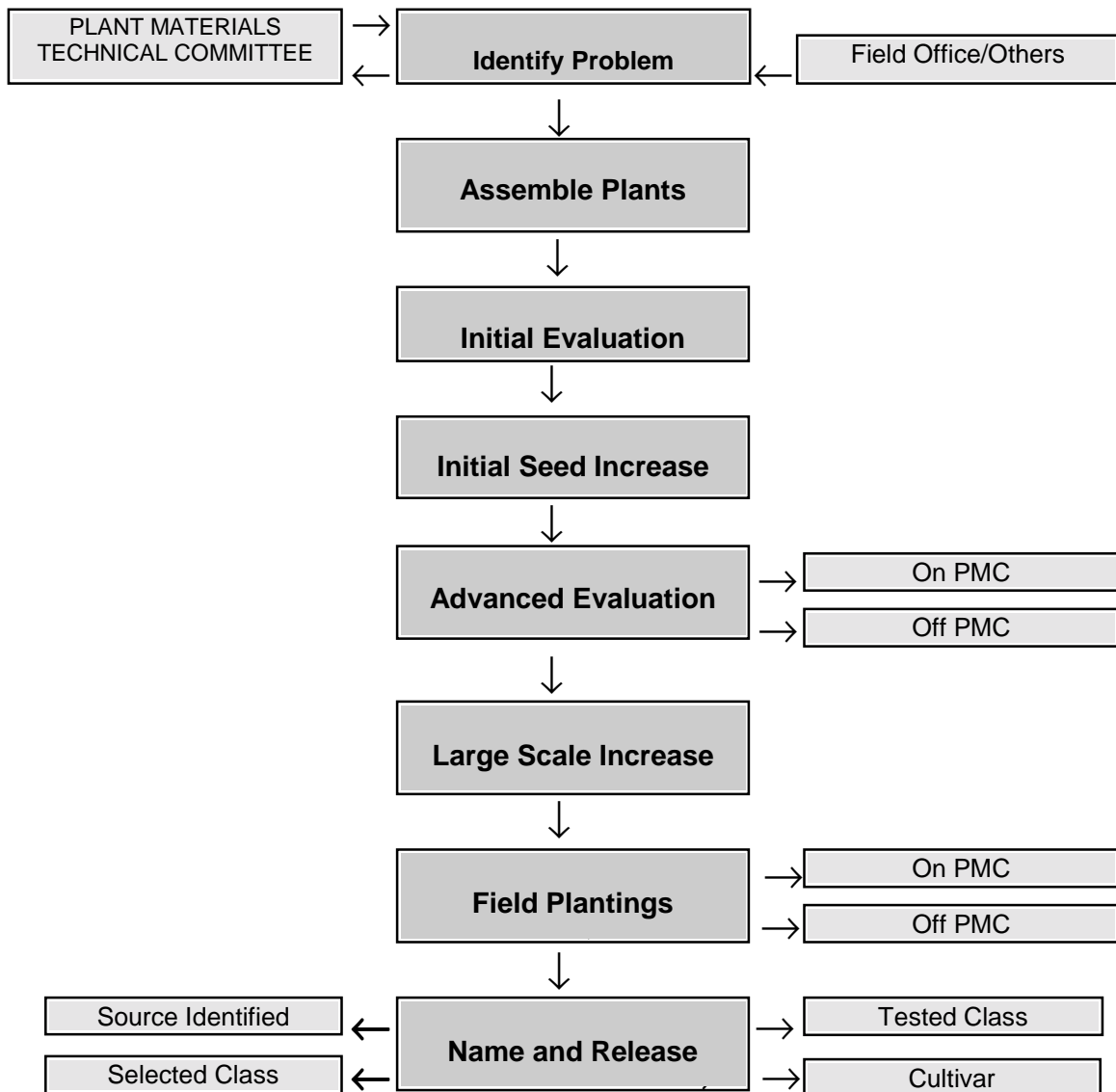
TEMPERATURE °F

RAINFALL (INCHES)

MONTH	HISTORICAL AVG.	2000 MONTHLY AVG.	2000 MAX	2000 MIN	HISTORICAL AVG.	2000 MONTHLY TOTAL
JANUARY	56.8	64	90	30	1.71	0.64
FEBRUARY	60.2	67	93	46	1.62	0.77
MARCH	66.9	72	97	51	0.86	1.27
APRIL	73.4	74	94	49	1.50	0.69
MAY	78.4	79	95	65	2.58	4.75
JUNE	82.9	84	98	68	3.05	1.50
JULY	84.9	88	105	71	2.13	0.0
AUGUST	84.9	86	102	69	2.72	0.97
SEPTEMBER	81.3	82	110	50	4.47	0.02
OCTOBER	73.8	75	96	44	3.17	1.87
NOVEMBER	65.0	63	89	37	1.26	2.40
DECEMBER	58.8	58	84	31	1.13	0.41
TOTAL					26.20	15.29

PLANT MATERIALS PROGRAM PLANT RELEASE PROCESS

The Plant Materials Program has established a systematic process to evaluate and release plants to address the conservation problems outlined in the long-range program. The intensity and time of evaluation will vary according to the class of release. A cultivar will require many years of intense evaluation whereas a source identified plant can be released in 1-2 years with little evaluation. The following flow chart illustrates the steps involved in this process.



LONG RANGE PROGRAM

PRIORITIES:

The Kika de la Garza Plant Materials Center's long range program has identified four high priority conservation needs to direct the operations at the PMC. These priorities have been established by the recommendations of the PMC Advisory Board, PMC Plant Technical Committee and field office surveys.

- Plant selection and cultural techniques to supply a better diversity of high-quality native forage for livestock.
- Plant selection and cultural techniques for addressing shoreline erosion and water quality of coastal and inland areas.
- Plant selection and cultural techniques to supply food, cover, and habitat for wildlife.
- Plant selection and cultural techniques for ecosystem restoration. Emphasis is on restoration of sites with alkaline and saline soil problems, endangered species recovery and sand dune stabilization.

Pasture and Rangeland Grasses

- Warm-season native grasses
- Cool-season native grasses

Erosion Control and Water Quality Improvement

- Evaluation of vegetative barriers for cropland and gully erosion control
- Plants for coastal shoreline erosion control
- Plants for coastal water quality improvement

Wildlife Habitat Improvement

- Plants for wildlife upland habitat
- Plants for coastal waterfowl habitat

Ecosystem Restoration

- Plant selection and cultural techniques for ecosystem restoration
- Plants for alkaline and saline soils
- Techniques for the restoration of endangered plant species

PASTURE AND RANGELAND GRASSES

WARM SEASON NATIVE GRASS PROJECTS

The Kika de la Garza Plant Materials Center (PMC) is currently looking at several species of warm season, native, perennial grasses for range restoration in South Texas. We are evaluating multiflowered false rhodesgrass (*Trichloris pluriflora*), or fourflower trichloris, plains bristlegrass (*Setaria macrostachya*), and Texas cupgrass (*Eriochloa sericea*). This year we also started new evaluations of vine mesquite, (*Panicum obtusum*), pink pappusgrass (*Pappophorum bicolor*), brownseed paspalum (*Paspalum plicatulum*) and hooded windmillgrass (*Chloris cucullata*).

Multiflowered False Rhodesgrass

Multiflowered false rhodesgrass (*Trichloris pluriflora*) is a warm-season, perennial, native grass that is closely related to false rhodesgrass. It is one of the two co-dominant climax species found on many range sites throughout South Texas, according to USDA-NRCS soil surveys. Multiflowered false rhodesgrass grows on plains and in dry woods in South Texas, Mexico, and in southern South America. Along with false rhodesgrass, the presence of multiflowered false rhodesgrass is considered to be an indicator of good range condition. Currently, there is no known commercial variety of multiflowered false rhodesgrass.

We are currently evaluating several accessions of multiflowered false rhodesgrass in order to select a superior accession for planting on South Texas range sites. We have established a field evaluation planting in Uvalde, Texas, as well as an advanced evaluation field plot at the Center. The advanced evaluation plot includes three different accessions: one from Harlingen, Texas; one from Sinton, Texas, and an accession from the State Department of Agriculture at Giddings, Texas (Technical Note Vol. 3, No.7, 2000). In the second year of advanced evaluation, there was no significant difference between the collections. Following next year's evaluation, we will decide whether to pick a single collection or to make a composite release.

Plains Bristlegrass

Plains bristlegrass is a warm-season, perennial grass that is native from South Texas to New Mexico, Colorado and Arizona, and down into central Mexico. The common name of plains bristlegrass may include the scientific species of *Setaria macrostachya*, *Setaria leucopila* and *Setaria texana*. Plains bristlegrass is found on open dry ground and in dry woods and on well-drained soils along gullies, stream courses, and is occasionally found in other areas when there is adequate moisture. It provides moderate to high quality forage for all types of grazing livestock, and makes up an appreciable part of the forage on southwestern ranges. This species is an excellent plant for range and wildlife use in South Texas.

The Kika de la Garza PMC established an advanced evaluation plot of plains bristleglass in the spring of 2000. It was established to specifically evaluate the seed production and seed quality characteristics of the Laredo collection of plains bristleglass (*Setaria macrostachya*) compared to commercial sources of plains bristleglass (*Setaria leucopila*). Despite the very dry year of 2000, there was no significant difference in survival between the various collections. The Laredo collection did produce significantly more seed per plant. (Technical Note Vol.3 No. 5, 2000) However, the seed was about ½ the size and weight of the *Setaria leucopila* collections. When seed was germination tested in November 2000 from the September 2000 harvest, there was no germination from any of the collections. We plan to reevaluate the germination characteristics of these various plains bristleglass collections in 2001.

We also evaluated different harvest techniques to see if we could improve the seed quality from our seed harvests of the Laredo collection. We collected seed from a brush harvester and a conventional combine. We also treated some of the brush harvested seed in a moist-thiram solution after harvest. When germination tested four months after harvesting, there were no significant differences in seed germination. Germination of the seed ranged from 0 to 6%.

We also conducted a seed retention study for plains bristleglass and Texas cupgrass. Both species have been known to have problems with seed shatter. Therefore, we tried applying a chemical agent called "Spodnam" in hopes of increasing seed retention. However, there was no significant difference in seed yields between plants that were treated and untreated plants for either species (Technical Note Vol. 3 No. 5, 2000).

Other Warm Season Grasses

The Kika de la Garza PMC has established an initial plot of four grasses it hopes will have good success in seed mixes for rangeland restoration in South Texas. We planted 5 collections of pink pappusgrass, 23 collections of vine mesquite, 22 collections of brownseed paspalum, and 35 collections of hooded windmillgrass. Brownseed paspalum and hooded windmillgrass look particularly promising with good survival, vigor and harvestability characteristics.

COOL SEASON NATIVE GRASS PROJECTS

The Kika de la Garza PMC is currently evaluating native perennial, cool season grasses, as well as other shade, tolerant species for cool season pastures, range mixes, and riparian restoration. The Center has been evaluating Canada wildrye (*Elymus canadensis*) and Virginia wildrye (*Elymus virginicus*) for several years. The Center also initiated a new evaluation of wood oats (*Chasmanthium latifolium*).

Canada Wildrye

Canada wildrye (*Elymus canadensis*) is a native, cool season, perennial bunchgrass that grows two to three feet in height. This species reproduces by tillering and seed. Canada wildrye is distributed throughout the United States except for Alabama, Georgia, Louisiana, and South Carolina. It can be found scattered on shaded banks, along fencerows and in open woodlands. Canada wildrye prefers drier soils, with lighter soil textures, and is less shade tolerant than Virginia wildrye. In the spring when it is green, Canada wildrye has good forage value for cattle and horses, and fair forage value for sheep and wildlife.

The Center has completed its evaluation of Canada wildrye and has released the “Lavaca” germplasm. This accession of Canada wildrye initiates growth earlier than most of the other cool season grasses, and therefore provides forage at a time when the warm season grasses are in decline and most cool season forages have not yet begun to accelerate in growth. The Lavaca germplasm can be used as a cool season component for fall seedings of native range mixes, for cool season pasture planting, and especially for shaded, wooded, riparian areas. Breeder and Foundation seed is being maintained at the PMC.

Virginia Wildrye

Virginia wildrye (*Elymus virginicus*) is also a native, cool season, perennial bunchgrass which grows two to three feet in height. It can reproduce by tillering and seed. Virginia wildrye can be found throughout the United States except for Nevada, California, and Oregon. Like the Canada wildrye, Virginia wildrye can be found scattered on shaded banks, along fencerows and in open woodlands. Virginia wildrye prefers moister soils, higher soil fertility, heavier soil textures, and is fairly shade tolerant. Virginia wildrye is very palatable and nutritious, and is readily eaten by all classes of livestock in the spring and fall when it is green. This species self-fertilizes but has been known to hybridize with other wildrye species.

Virginia wildrye is in the advanced stages of evaluation. Center staff are currently looking at two accessions of Virginia wildrye, one from Madisonville and one from San Marcos, Texas. Extensive field testing of this species has included both seeded and transplanted plots at the Center as well as transplanted plots in Bandera, Texas. (Technical Note Vol. 3 No.1 and Vol.3 No.2, 2000). Seed increase plots of both accessions are being harvested at the Center.

EROSION CONTROL AND WATER QUALITY IMPROVEMENT

The Kika de la Garza PMC is working on three main erosion control projects. It is evaluating vegetative barriers or grass hedges as an erosion control alternative on cropland. It is evaluating different bioengineering approaches towards coastal shoreline erosion. And it is evaluating different plant material for streambank and urban ditch bank stabilization.

The Center is also evaluating several wetland species for water quality improvement in constructed wetlands.

Vegetative Barriers

The Natural Resources Conservation Service has promoted the use of terraces for soil erosion control for over 40 years. More recently the concept of using vegetative barriers or grass hedges as a vegetative alternative has been investigated. The greatest appeal of vegetative barriers is as a low-cost method in developing a terrace. It could provide an option to conventional terraces without the need for heavy machinery. Furthermore, it would eliminate the movement and compaction of precious topsoil.

The PMC installed at the Center in April, 2000, an evaluation plot of different planting and seeding methods for establishing vegetative barriers. The treatments included seeding eastern gamagrass (*Tripsacum dactyloides*) at 4 and 8 pure live seed per square foot and seeding switchgrass (*Panicum virgatum*) at 6 and 12 pounds pure live seed per acre, as well as planting switchgrass transplants. Plantings were done on both sand and clay soils. Results of this study indicate that seeding switchgrass will not produce an adequate vegetative barrier. However, eastern gamagrass did show results that merit further evaluation. Specifically, we plan to evaluate seeding eastern gamagrass in the fall and late winter. We also plan to evaluate differences in establishment between flat planting and bedded rows. The most successful treatment currently for establishing a grass hedge appears to be the utilization of small switchgrass transplants planted into bedded rows (Technical Note Vol. 3 No.8, 2000).

Riparian Shrubs and Small Trees

Native shrubs and small trees play an important role in preventing erosion along streams. Furthermore, they can help stabilize urban ditch banks and provide critical wildlife habitat. The PMC has begun to collect native plant material that is adapted to the harsh conditions of South Texas. The Center has collected and is currently looking at roughleaf dogwood (*Cornus drummondii*), elderberry (*Sambucus canadensis*), sandbar willow (*Salix exigua*), seep willow (*Baccharis salicifolia*), buttonbush (*Cephalanthus occidentalis*), marsh elder (*Iva frutescens*), turks cap (*Malviscus arboreus*), swamp privet (*Forestiera acuminata*), and hachinal (*Heimia salicifolia*).

Wetland Species for Water Quality Improvement

Constructed wetlands are receiving increased attention as viable systems for the treatment of wastewater from municipal, industrial, and agricultural sources. They are an innovative, economical and efficient method of pollution control. In South Texas, there is particular interest in using constructed wetlands to cleanse water discharged from shrimp and fish farms. This requires identifying and propagating wetland plants that have good salinity tolerance. Some of the plants the Kika de la Garza PMC is looking at are smooth cordgrass (*Spartina alterniflora*), black mangrove (*Avicennia germinans*), olney bulrush (*Scirpus americanus*), saltmarsh bulrush (*Scirpus robustus*), California bulrush (*Scirpus californicus*), American bulrush (*Scirpus pungens*), softstem bulrush (*Scirpus tabernaemontani*) and black needlerush (*Juncus roemerianus*).



WILDLIFE HABITAT IMPROVEMENT

COASTAL WATERBIRD HABITAT

Wetlands provide numerous conservation benefits including shoreline erosion control, water quality improvement, and wildlife habitat. Texas coastal wetlands are internationally significant migration and wintering habitats for North American waterfowl. Efforts to create new wetlands or enhance or restore degraded wetlands are often hindered by lack of available plant material and reliable data regarding propagation and establishment techniques. We have collected and are evaluating 15 species of native Texas wetland plants determined by coastal refuge managers from Texas Parks and Wildlife and US Fish and Wildlife Service (USFWS) to be preferred by waterfowl for either food or cover.

Coastal Wetland Plants

Four particular species appear to have good promise for large-scale wetland planting. Saltmarsh bulrush (*Scirpus robustus*), creeping river grass (*Echinochloa polystachya*), squarestem spikerush (*Eleocharis quadrangulata*) and gulfcoast spikerush (*Eleocharis cellulosa*) all produce easily harvestable seed. The two spikerush species also produce an abundance of desirable tubers. The PMC is currently evaluating the seed germination and propagation of these species. The Center has evaluated the seed production and germination characteristics of saltmarsh bulrush (Technical Note Vol.3 No.4, 2000). Saltmarsh bulrush produces an abundance of seed that can be stored wet or dry. It has good seed germination and appears to be a very promising plant for large-scale wetland seeding. Funding for this project has been possible through our partnership with the U.S. Fish and Wildlife Service.

Waterbird Nesting Habitat

Many waterbirds such as herons and egrets prefer nesting in trees or tall shrubs. Along the Texas Gulf Coast and especially on dredge-spoil islands, there is very little tree or shrub cover. The Kika de la Garza PMC is currently evaluating different plant species and planting techniques for the establishment of native Texas trees and shrubs. Seven plant species are currently being evaluated: mesquite (*Prosopis glandulosa*), huisache (*Acacia farnesiana*), colima (*Zanthoxylum fagara*), marsh elder (*Iva frutescens*), fiddlewood (*Citharexylum berlandieri*), sweet bay (*Persea borbonia*), and retama (*Parkinsonia aculeata*). Planting techniques include plant protectors and weed mats. This evaluation is being conducted on Sundown Island in Lavaca Bay and is funded by the U.S. Fish and Wildlife Service.

WILDLIFE UPLAND HABITAT

Orange Zexmenia

Orange zexmenia (*Zexmenia hispida*), also known as hairy wedelia (*Wedelia hispida*), is a common, native, warm-season, perennial forb. A member of the sunflower family (Composite), it grows approximately 24 to 30 inches tall blooming from March to December. Its shrub-like form, bright yellow-orange flowers, and hardiness in both dry and moist conditions makes it an attractive plant for landscape use. In addition, it is easily cultivated, and is often browsed by deer, sheep, and goats. The Center has made a selection of orange zexmenia, and is currently increasing the size of our seed field prior to release.

Perennial lazy daisy

Aphanostephus riddellii, commonly known as perennial lazy daisy, is a member of the sunflower family (Composite), and grows nine to twelve inches tall. Its yellow-disked, white-rayed flowers bloom from February to December. Its low, bushy growth form and profuse flowers make perennial lazy daisy attractive for landscape use. The Center has made a selection of lazy daisy and is currently increasing our seed field prior to release.

White Prickly Poppy

White prickly poppy (*Argemone albiflora*) is an erect, prickly, deep-rooted annual or biennial plant. Seeds of prickly poppy are purported to be an excellent source of food for quails and other birds because of their high oil content. The PMC has completed its evaluation of prickly poppy and has successfully grown it for seed production. Under dryland conditions, the PMC produced approximately 130 lbs. of seed per acre. Prickly poppy can vary in seed quality with seed germination ranging from 0-76%. Information on white prickly poppy is available from a fact sheet produced by the PMC.

Native Forbs and legumes

The Kika de la Garza PMC continues to evaluate numerous forbs and legumes for wildlife potential in south Texas. The following legumes are currently being evaluated at the Center: fern acacia (*Acacia angustissima*), golden dalea (*Dalea aurea*), prairie clover (*Petalostemum multiflorum*), and bundleflower (*Desmanthus* spp.). We also are evaluating several forbs including globemallow (*Sphaeralcea* spp.) and pigeon berry (*Rivina humilis*).

ECOSYSTEM RESTORATION

SALINE SITE RESTORATION

There is an estimated 600,000 acres in South Texas that exhibit complex saline and alkaline soil problems. These soils need plants that are adapted to these specific problems. Gulf cordgrass (*Spartina spartinae*), marshhay cordgrass (*Spartina patens*), armed saltbush (*Atriplex acanthocarpa*), seashore dropseed (*Sporobolus virginicus*) and saltgrass (*Distichlis spicata*) are some of the plant species we are evaluating for use on these sites.

CAPTAIN FALCON PARK

The Corpus Christi Parks and Recreation Department has been seeking a solution to an erosion problem at Captain Falcon Park. Assessment of the soil at the park indicated a severe salinity problem. The Plant Materials Center developed a list of native plants adapted to the highly saline conditions of the park. The Center then proceeded to grow and plant over 6000 transplants in the spring of 1999 and 5725 transplants in the fall of 1999. Where soil salinities were below an electrical conductivity (EC) of 28, alkali sacaton (*Sporobolus airoides*) and marshhay cordgrass (*Spartina patens*) were successfully established under weekly summer irrigation. Where the EC exceeded 28, amending the saline clay soils with a sand-compost mixture markedly improved plant survival and growth. Salinity levels dropped from an average EC of 47 to 18 with a corresponding survival rate from 0 to 86%. Alkali sacaton, marshhay cordgrass, seashore dropseed (*Sporobolus virginicus*) and saltgrass (*Distichlis spicata*) all performed well on the treated soils (Technical Note Vol.3 No.9, 2000). Support and funding for this project has been possible through our partnership with the City of Corpus Christi and the Nueces County Soil and Water Conservation District.

PLANT MATERIALS CENTER

PARTNERSHIPS

1) LIVESTOCK FORAGE:

Agricultural Experiment Station:
Uvalde

2) SHORELINE EROSION / WATER QUALITY:

Texas State Soil and Water Conservation Board
Environmental Protection Agency/Luling Foundation:
Vegetative Barriers

Texas GLO/Texas Coastal Management Program/Coastal Bend Bays National
Estuary Program:
Shoreline Erosion

City of Corpus Christi:
Stormwater Management

3) WILDLIFE:

US Fish and Wildlife Service

4) RESTORATION:

South Texas Association of Soil and Water Conservation Districts:
Saline Sites

Texas A&M - Corpus Christi:
Endangered Species

TECHNOLOGY TRANSFER

Newsletters:

- ❖ Captain Falcon Park Saline Revegetation Project – Jan. 2000
- ❖ South Texas Forbs and Legumes – May 2000
- ❖ Seed Retention in Plains Bristlegrass and Texas Cupgrass – Oct. 2000

Technical Notes:

- | | |
|---------------|--|
| 2000:1 | Third Year Forage Production of Wildrye
Accessions in South Texas |
| 2000:2 | Cool Season Forage Production In South Central Texas:
Third Year Production |
| 2000:3 | A Comparison of Methods of Collecting Data From a
Seeded Research Plot |
| 2000:4 | A Germination Study of Dry-Stored Salt-Marsh
Bulrush Seed |
| 2000:5 | A Comparison Study of Seed Production In Six
Accessions of Plains Bristlegrass |
| 2000:6 | A Seed Retention Study of Texas Cupgrass and
Plains Bristlegrass |
| 2000:7 | Second Year Forage Production of Multiflowered False
Rhodesgrass |
| 2000:8 | An Evaluation of Different Planting Treatment for the
Establishment of Vegetative Barriers in South Texas |
| 2000:9 | Captain Falcon Park Saline Revegetation Project, Year 2 |

Magazine Articles:

- ❖ Gully Erosion Control with Vegetative Barriers. 2000
Land and Water Magazine. Vol. 44, No. 2 2p.
- ❖ A Bioengineering System for Coastal Shoreline Erosion. 2000
Land and Water Magazine. Vol. 44, No. 5 4p.

Progress Reports:

- ❖ Erosion and Sediment Control with Vegetative Barriers.
June, 2000. Final Report (EPA). 118p.

Plant Fact Sheets and Plant Guides:

- ❖ Canada Wildrye
- ❖ Prickly Poppy
- ❖ Texas Cupgrass

PRESENTATIONS

- ❖ Landscape Restoration Work at the Kika de la Garza PMC - Kingsville, TX.
John Lloyd-Reilley – 1/21/2000
- ❖ Bioengineering Strategies in South Texas – Texas A&M Kingsville
John Lloyd-Reilley – 3/27/2000
- ❖ Vegetative Barriers for Erosion Control – San Antonio, TX.
John Lloyd-Reilley – 3/31/2000
- ❖ Conservation Buffers – Poth, TX.
John Lloyd-Reilley – 4/6/2000
- ❖ Backyard Conservation – Corpus Christi, TX.
John Lloyd-Reilley – 4/22/2000
- ❖ Stormwater Monitoring and Channel Restoration – Corpus Christi, TX.
John Lloyd-Reilley – 4/28/2000
- ❖ Vetiver Grass Hedges – Luling, TX.
John Lloyd-Reilley – 6/8/2000
- ❖ Status Report on the Kika de la Garza PMC – Kingsville, TX.
John Lloyd-Reilley – 6/31/2000
- ❖ Making a Living on Texas Native Grasslands – Austin, TX.
John Lloyd-Reilley – 7/8/2000
- ❖ Plant Materials Strategies for South Texas – Kingsville, TX.
John Lloyd-Reilley – 7/20/2000
- ❖ Cooperative Partnerships – Kingsville, TX.
John Lloyd-Reilley – 8/22/2000
- ❖ South Texas Native Plant Initiative – Kingsville, TX.
John Lloyd-Reilley – 8/24/2000
- ❖ Future Trends at the Kika de la Garza PMC – Pleasanton, TX.
John Lloyd-Reilley – 9/13/2000
- ❖ South Texas Wetland Plants – Kingsville, TX.
John Lloyd-Reilley & Irma Negrete – 11/15/2000
- ❖ Native Plant Restoration – Kingsville, TX.
John Lloyd-Reilley – 11/19/2000
- ❖ Habitat Restoration Strategies – South Padre Island, TX.
John Lloyd-Reilley – 11/28/2000

PLANT MATERIALS DISTRIBUTED IN 2000

Canada wildrye "Lavaca select"	(Elymus canadensis)	10 pounds
Three flower melic	(Melica nitens)	3.6 pounds
Big sacaton "Falfurrias select"	(Sporobolus wrightii)	60 pounds
White prickly poppy	(Argemone alloiflora)	32 pounds
Vetiver	(Vetiveria zizanoides)	1700 plants

PLANT RELEASES

"Kinney"	False Rhodesgrass (Chloris crinita)	1998
"Falfurrias"	Big Sacaton (Sporobolus wrightii)	1998
"Lavaca"	Canada wildrye (Elymus canadensis)	2000